



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,998	08/07/2003	Timothy A. Booth	03-328	1565

719 7590 11/08/2004

CATERPILLAR INC.  
100 N.E. ADAMS STREET  
PATENT DEPT.  
PEORIA, IL 616296490

EXAMINER

WRIGHT, DIRK

ART UNIT PAPER NUMBER

3681

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/635,998

Applicant(s)

BOOTH ET AL.

Examiner

Dirk Wright

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-17 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5 and 7-10 is/are rejected.
- 7) ☒ Claim(s) 4, 6 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3, 5, and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by at least Smedley '274 and Bates '350. Smedley shows a clutch calibration apparatus and method with an engagement parameter corresponding to the touch point for the clutch, and an operating parameter corresponding to 40-60% of the engine idle speed. Figure 6 shows a calibration method flow diagram. Bates shows another clutch calibration apparatus and method with an engagement parameter corresponding to  $IS > 0$  and an operating parameter corresponding to the touch point (tp) and the approach point (ap). Figure 4 shows a flow diagram for the calibration method.

Art Unit: 3681

Claims 1-3, 5, and 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by at least Karlsson et al. '486. Karlsson shows a clutch calibration apparatus and method with an engagement parameter corresponding to (x) and an operating parameter corresponding to T(x). A curve representing a possible relationship between the engagement and operating parameters is found in Figure 3. See also column 2, lines 38-50.

***Allowable Subject Matter***

Claims 4, 6 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not appear to anticipate nor render obvious the invention of the features of claim 1 in combination with the features of determining an operating parameter by sensing a speed of an output shaft of the transmission, or with the feature of calibrating the engagement control signal by calibrating a current or a voltage, or with the feature of delivering a notification signal upon completion of the calibration procedure.

Claims 12-17 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art does not anticipate nor render obvious the invention of calibration method for a trolling valve as recited in claim 12, including the features of calibrating the clutch to both a full slip and a full engagement condition as well as providing a notification signal, nor does the prior art appear to anticipate nor render obvious the invention as recited in claim 13, including the features of an operator interface, a control system in communication with the interface and configured to calibrate a control signal that corresponds to amount of engagement of a clutch, and a trolling valve

Art Unit: 3681

operable to receive a signal from the control system to control the amount of engagement of the clutch.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited all show clutch calibration methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dirk Wright whose telephone number is 703-308-2160. The examiner can normally be reached on Monday through Friday, 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dirk Wright

A handwritten signature in black ink, appearing to read 'Dirk Wright', with a stylized, cursive script.

Application/Control Number: 10/635,998

Page 5

Art Unit: 3681

Primary Examiner

Art Unit 3681

DW

Saturday, October 30, 2004